



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/819,578	03/28/2001	Ahmed A. Busnaina	837BUS-X	3505

7590

07/27/2006

James Marc Leas  
37 Butler Drive  
S. Burlington, VT 05403

EXAMINER
----------

MARKOFF, ALEXANDER

ART UNIT	PAPER NUMBER
----------	--------------

1746

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/819,578	BUSNAINA, AHMED A	
	<b>Examiner</b>	<b>Art Unit</b>	
	Alexander Markoff	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18, 21-23, 59-78 and 80-98 is/are pending in the application.
- 4a) Of the above claim(s) 81-98 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 21-23, 59-78 and 80 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. The applicants traversed the restriction requirement made in the previous office action. The traversal is on the ground(s) that the applicants consider claims 72 and 70 being linking claims. This is not found persuasive because of the reasons given in the previous Office action. Claims 70 and 72 are not linking claims because a mere recitation of a concept by the dependent claim does not make the claim a linking claim.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 10, 12-17, 18, 22, 23, 59-62, 68, 70-78 and 80 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogata et al (US Patent No 5,333,628).

Ogata et al teach a method as claimed. See entire document, especially Figures 1 and 2 and the related description.

As to the newly introduced limitation requiring inlets below overflow:

First, Ogata et al teach inlets below the overflow. The inlets at pump 10 are below overflow 6. Moreover, Ogata et al teach a second overflow at the top of the container.

It is further noted that it has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961).

In the instant case the recited structure limitation does not affect the method in a manipulative sense.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1746

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 5, 11, 63, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata et al.

The cited documents teach the claimed method except for the specific spacing range and the specific flow rate.

However, the specific size of the spacing through which the cleaning liquid is flowing and the specific flow rate of the cleaning liquid are result effective variables. It would have been obvious to an ordinary artisan at the time the invention was made to find the optimum parameters for the result effective variable by routine experimentation.

8. Claims 1-5, 10, 11, 18, 21, 23, 59-63, 68, 69, 76-78 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akamuna et al.

Akamuna et al teach the claimed method except for the container with overflow on two sides, for the specific spacing range and the specific flow rate.

As to the overflow on two sides:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide overflow on two sides, since it has been held that mere

Art Unit: 1746

duplication of the essential working parts of a device involves only routine skill in the art.

St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

It is also noted that it has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961).

In the instant case the recited structure limitation does not affect the method in a manipulative sense.

The specific size of the spacing, through which the cleaning liquid is flowing, and the specific flow rate of the cleaning liquid are result effective variables. It would have been obvious to an ordinary artisan at the time the invention was made to find the optimum parameters for the result effective variable by routine experimentation.

9. Claims 6-9 and 64-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akamuna et al in view of JP 5-13396.

Akamuna et al does not teach the claimed frequency, the power and the power density of the transducer. The documents are silent regarding the power.

However, JP 5-13396 teaches that power and power density is a result effective variable and teaches that the claimed ranges for these parameters were conventional in the art. The document also teaches that the claimed frequency was conventional for the cleaning art. See entire document, especially part [0012].

It would have been obvious to an ordinary artisan at the time the invention was made to provide the transducers of any one of Akamuna et al with frequency, power and power density disclosed by JP 5-13396 in order to ensure the adequate cleaning of the substrates.

10. Claims 6-9 and 64-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogata et al in view of JP 5-13396.

Ogata et al teach the claimed method except for the frequency, the power and the power density of the transducer. The documents are silent regarding the power.

However, JP 5-13396 teaches that power and power density is a result effective variable and teaches that the claimed ranges for these parameters were conventional in the art. The document also teaches that the claimed frequency was conventional for the cleaning art. See entire document, especially part [0012].

It would have been obvious to an ordinary artisan at the time the invention was made to provide the transducers of any one of Ogata et al with frequency, power and power density disclosed by JP 5-13396 in order to ensure the adequate cleaning of the substrates.

11. Claims 12-17 and 70-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/08200.

WO 01/08200 teaches a method as claimed except for overflow at two sides. See entire document, especially Figure 1 and the related description.

Art Unit: 1746

It is noted that the claimed subject matter of these claims was introduced in the instant application.

As to the overflow on two sides:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide overflow on two sides, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

It is also noted that it has been held that to be entitled to weight in method claims, the recited structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. *Ex parte Pfeiffer*, 1962 C.D. 408 (1961).

In the instant case the recited structure limitation does not affect the method in a manipulative sense.

### ***Response to Arguments***

12. Applicant's arguments filed 05/02/06 have been fully considered but they are not persuasive.

The applicants amended the claims and argue that the previously applied art does not teach newly introduced limitations.

The newly introduced limitations were addressed in the rejection above.

With respect to Ogata et al the applicants argue that the document does not teach inlet below overflow. This is not persuasive because of the reasons provided in the rejection above.



It is also noted that the applicants argue that overflow over part 7 would contaminate the cleaned article.

This is not persuasive because the liquid from the upper part of the container is used to shower the part to be cleaned down stream from the container at 12b. Thereby, the applicants' argument contradicts to the teaching of Ogata et al.

With respect to the rejections made over Akamuna et al the applicants argue that the inlet in Akamuna et al is above the overflow.

This is not persuasive because in contrast to the applicants' statement Fig. 1 of Akamuna et al shows inlets 26 and 13 below the overflow 8.

The applicants also argue that it would not be obvious to provide overflow on to sides of the container.

This is not persuasive because it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide overflow on two sides, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Moreover, since Akamuna et al require regulating of the proportions of the overflow and flow through the container, it would have been obvious to an ordinary artisan to increase the overflow area at least at the area near side 21 to have an ability to regulate the referenced proportions in a wider range.

Further, the examiner's position with respect to the pending claims is that no unexpected results are achieved by providing overflow on two sides.

With respect to the rejection over WO 01/08200 the applicants argue that providing overflow on two sides would require common adjustment of multiple parts.

This argument is not persuasive because whether or not the applicants are correct with their statement; the claims do not exclude the referenced adjustment.

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

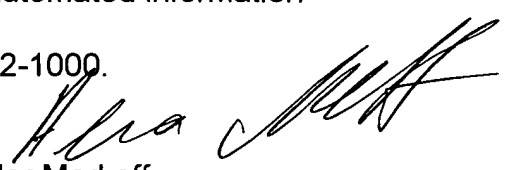
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 571-272-1304. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alexander Markoff  
Primary Examiner  
Art Unit 1746

AM

**ALEXANDER MARKOFF**  
**PRIMARY EXAMINER**